PATENT APPLICATION
Mo-5586
LeA 33,605

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF	
HANS-ULRICH BUSCHHAUS ET AL	GROUP NO.: 1713
SERIAL NUMBER: 09/552,044	EXAMINER: M. REDDICK
FILED: APRIL 19, 2000	
TITLE: WATER-BASED FORMULATIONS WITH FUNGICIDAL ACTION	

LETTER

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated 6/22/04, Applicants herby submit 3 copies of the Appeal Brief for the subject Appeal.

Respectfully submitted

By _____
Diderico van Eyl
Attorney for Appellants
Reg. No. 38,641

Lanxess Corporation
100 Bayer Road
Pittsburgh, Pennsylvania 15205-9741
(412) 777-3069
FACSIMILE PHONE NO.:
(412) 777-2612

/jme

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 7/15/04
Date
Diderico van Eyl, Reg. No. 38,641
Name of applicant, assignee or Registered Representative
Signature
July 15, 2004
Date

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CORRECTED APPEAL BRIEF

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief, submitted in triplicate, is an appeal from the Final Office Action dated July 28, 2003, in which Claims 40-47 were finally rejected. The Brief also addresses the issues raised in the Advisory Action mailed January 7, 2004. A Notice of Appeal was filed on November 28, 2003. Applicants address the formalities mentioned in the Office Action of June 22, 2004.

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Diderico van Eyl, Reg. No. 38,641
Name of applicant, assignee or Registered Representative

Signature

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I. REAL PARTY IN INTEREST

The real party in interest is assignee Bayer Chemicals AG.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences which directly or indirectly affect the present appeal.

III. STATUS OF CLAIMS

Pending and appealed Claims 40-47 stand rejected. Claims 1-39 were previously cancelled.

IV. STATUS OF AMENDMENTS

Claims 40-47 stand as amended in an Amendment filed on November 28, 2003.

V. SUMMARY OF THE INVENTION

The present invention is directed to solving the problem of hydrolysis sensitive compounds that could not be used in "ready to use" water based compositions and paints. The water based "ready to use" compositions are made for direct application by the end user and must be storage stable over a long time period. Appellants' invention provides a solution for this problem. The invention encompassed by Claim 40, for instance, encompasses an aqueous system comprising: (A) a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof, and (B) one or more binders having a pH $\leq$ 7 selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions, in which the aqueous system is storage stable. Independent Claim 43 encompasses a method for stabilizing a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof, in an aqueous system, in which the process incorporates into the aqueous system one or more binders having a pH $\leq$ 7 and selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions, and thereby stabilizing the component and forming a storage stable aqueous system. Independent Claim 45

encompasses a method for protecting an aqueous system against microbial infestation that involves incorporating into the aqueous system a storage stable aqueous system comprising

(A) a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof, and

(B) one or more binders having a pH $\leq$ 7 and selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions, and thereby protecting the system. Independent Claim 47 encompasses a binder comprising an aqueous storage stable system containing: (A) a component selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions and having a pH $\leq$ 7 and (B) a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof.

VI. ISSUES

The issues before the Board are as follows:

1. Are Claims 40-47 indefinite under 35 USC 112, second paragraph?

2. Are Claims 40-47 Obvious Under 35 USC 103 over U.S. Pat. No. 3,113,399 (Eversole) in view of US Pat No. 5,972,971 (Heuer et al)?

3. Are Claims 40-47 Novel Under 35 USC 102(e) or alternatively Obvious Under 35 USC 103 over U.S. Pat. No. 5,990,143 (Ludwig et al)?

VII. GROUPING OF CLAIMS

Claims 40-47 stand together as a single group.

VIII. ARGUMENTS

Rejection of Claims 40-47 Under 35 USC 103

1. Rejection Under 35 USC 103 over U.S. Pat. No. 3,113,399 (Eversole) in view of US Pat No. 5,972971 (Heuer et al).

The Examiner rejected Claims 40-47 under 35 USC 103 over U.S. Pat. No. 3,113,399 (Eversole et al) in view of US Pat No. 5,972971 (Heuer et al). The rejection should be withdrawn in view of the remarks below.

The Examiner indicates that Eversole et al differs from the claimed invention as per the non-express disclosure of am an embodiment directed to the specifically defined (A) components (Examiner, page 3, lines 9-12). The Examiner then alleges that Heuer et al teach that fungicidal compounds, viz. sulfenamides such as dichlorofluanid, flurofolpet, and captan are well know equivalents for use against wood-destroying fungi (Office Action, page 3, lines 13-15). Further the Examiner alleges if would have been obvious to the skilled artisan to swap the captan per Run II for any of the antecedently recited fungicides disclosed as operable equivalents per Heurer et al and with a reasonable expectation of success with the understanding that one of ordinary skill in the art would have readily envisioned the use of the oil-modified alkyd resin used in Run VII in lieu of the maleic anhydride modifying drying oil per Run II (Office Action, page 3, lines 16-22).

Eversole does not deal with storage stable formulations. In fact, Eversole et al teaches away from Appellants' claimed invention. Eversole et al discloses a seed coating including a maleic anhydride modified oil and Captan. The seed coating is prepared and immediately mixed with the seed corn and tumbled in a paint roller (Col. 27-31) Thus, there is no need for any storage of the seed coating. Eversole et al does not contribute anything to the solution of the problem how to prepare storage stable formulations of hydrolysis sensitive substances. Eversole et al lacks the teachings that would have motivated one of ordinary skill in the art following Eversole et al to modify Eversole and make or practice Appellants' invention.

The inventors of the present invention surprisingly realized that in the presence of the specific binders the sensitive compounds dichlofluanid, tolylfluanid,

and fluorfolpet are storage stable in aqueous medium over a long time period. This result could not be foreseen from the knowledge of Eversole et al .

Regarding Heuer et al, Heuer et al discloses mixtures of a specific azole compound with insecticides to protect wood, and as discussed above with reference to Eversole et al, does not deal with storage stable formulations. Heuer et al merely discloses a rather lengthy cataloging-type list of fungicides including dichlorofluanid, tolyfluanid, folpet, fluorfolpet, captan and captol (Col. 4). The Examiner's allegation that it is obvious to replace the fungicide compound under Heuer et al and to arrive at Appellants' invention is not supported.

Further, in light of the preceding discussion, even if Eversole et al and Heurer et al were combined, Appellants' presently claimed aqueous system and method related to an aqueous system would not result in the absence of the impermissible use of hindsight reconstruction. "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (Fed.Cir.1983). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Fine, 837 F.2d 1071, 1075 (CAFC, 1988). Reconsideration is requested.

Rejection of Claims 40-47 Under 35 USC 102(e) or alternatively 103(a)

1. Rejection Under 35 USC 102(e) as anticipated by or in the alternative under 35 USC 103(a) as obvious over U.S. Pat. No. 5,990,143 (Ludwig et al).

The Examiner rejected Claims 40-47 under 35 USC 103 over U.S. Pat. U.S. Pat. No. 5,990,143 (Ludwig et al). The rejection should be withdrawn in view of the remarks below.

The present invention is directed to solving the problem of hydrolysis sensitive compounds that could not be used in "ready to use" water based compositions and paints. The water based "ready to use" compositions are made for direct application by the end user and must be storage stable over a long time period. Appellants' invention provides a solution for this problem.

Ludwig et al does not teach or suggest how to prepare ready to use formulations of the hydrolysis sensitive compounds of dichlofluanid, tolyfluanid and fluorfolpet. Ludwig et al discloses water based solvent and emulsifier-free microbicidal active compound formulations based on azole fungicides and at least one quaternary ammonium fungicide of a specific formula. Among an extensive list of other compounds, binders as synthetic resins or acrylic resins and mixing partners including sulfenamides, the combination of Appellants' invention is not disclosed. In fact, there is no motivation or suggestion to combine the hydrolysis-sensitive compounds and specific alkyd resin and/or acrylate dispersion binders of the present invention. For example, Ludwig et al discloses in examples 1-4 only combinations of quaternary ammonium fungicides with tebuconazole. Furthermore, Ludwig et al would not motivate one skilled in the art to stabilize the hydrolysis-sensitive compounds with the specific binders of Appellants' invention.

The comments in the Advisory Action do not add anything to compel the conclusion reached above. One of ordinary skill in the art would not have been motivated by the cited prior art to modify the art, practice or make Appellants' invention, and expect the results Appellants have obtained.

Rejection of Claims 40-47 Under 35 USC 112, second paragraph

The Office Action rejected Claims 40, 43, 45 and 47 under 35 USC 112, second paragraph, on the grounds that the phrase "acrylate dispersions" rendered the claims indefinite. Appellants respectfully disagree. When read in light of the specification, the term "acrylate dispersions" would be readily understood by one of ordinary skill in the art. The claims are patentable in their present form. Reconsideration is requested.

In view of the foregoing amendments and remarks, withdrawal of the rejections is earnestly requested.

Respectfully submitted,

By _____
Diderico van Eyl
Attorney for Appellants
Reg. No. 38,641

Lanxess Corporation
100 Bayer Road
Pittsburgh, Pennsylvania 15205-9741
(412) 777-3069
FACSIMILE PHONE NO.:
(412) 777-2612

/jme

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APPENDIX: CLAIMS ON APPEAL

Claims 1-39 (Canceled).

40. (Previously presented) An aqueous system comprising:

(A) a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof, and

(B) one or more binders having a pH $\leq$ 7 selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions,

wherein the aqueous system is storage stable.

41. (Previously presented) An aqueous system according to Claim 40, wherein the binder has a pH $\leq$ 5.

42. (Previously presented) An aqueous system according to Claim 40, wherein the binder has a pH $\leq$ 3.

43. (Previously presented) A method for stabilizing a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof, in an aqueous system,

the process comprising incorporating into the aqueous system one or more binders having a pH $\leq$ 7 and selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions, and thereby stabilizing the component and forming a storage stable aqueous system.

44. (Previously presented) A method according to Claim 43, wherein the binder has a pH $\leq$ 5.

45. (Previously presented) A method for protecting an aqueous system against microbial infestation comprising incorporating into the aqueous system a storage stable aqueous system comprising:

(A) a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof, and

(B) one or more binders having a pH $\leq$ 7 and selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions, and thereby protecting the system.

46. (Previously presented) A method according to Claim 45, wherein the binder has a pH $\leq$ 5.

47. (Previously presented) A binder comprising an aqueous storage stable system containing:

(A) a component selected from the group consisting of (i) alkyd resins based on vegetable oils and (ii) acrylate dispersions and having a pH $\leq$ 7 and

(B) a component selected from the group consisting of dichlofluanid, tolylfluanid, fluorfolpet, and mixtures thereof.